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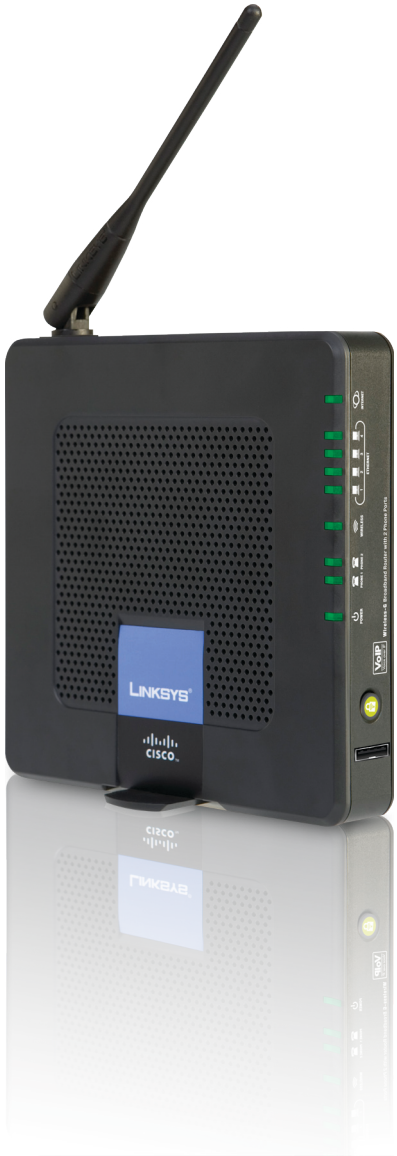
CISCO

Wireless-G Broadband Router with 2 Phone Ports

PRODUCT DATA

Innovative triple-play networking solution with QoS



All-in-one Internet-sharing Wireless-G broadband router with 4-port switch

Two standard phone jacks enable feature-rich telephone service over a broadband Internet connection

Simple, easy and secure Wi-Fi Setup with industry standard push-button WPS, wireless MAC address filtering, powerful firewall capability, and dual SSID capability

Advanced Quality of Service (QoS) functionality for voice, video, and data services

Model: **WRP400**

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Hardware Features

- One 10/100 802.3/u (RJ-45) WAN Interface
- Four 10/100 802.3/u (RJ-45) LAN Interfaces
- Integrated 802.11b/g Wireless Access Point
- Two FXS RJ-11 Interfaces
- Reset Button / Restore Factory Defaults
- LEDs – Power, Internet, Ethernet, Wireless, Phone(s), WPS
- Power – External, 5V DC, 2A (full range switching power adapter)
- Wi-Fi Protected Setup (WPS) Button

Software Features

- Static and Dynamic Routing (RIP 1, RIP2)
- Multicast Pass-Through
- Denial of Service (DoS) Prevention
- Web Based Configuration
- VPN Pass-Through with IPSec, L2TP and PPTP
- Event Logging
- DHCP Server
- Access Control Lists
- Universal Plug and Play (UPnP)
- Password Protected Configuration or Management Sessions for Web Access
- Remote Management (SIP SUBSCRIBE and NOTIFY message, use NOTIFY message to reset the box remotely) and Remote Web Management
- IGMP Multicast and IGMP Snooping (v1/v2/v3) Support
- 802.1p Prioritization QoS Support
- DiffServ, ToS Classification
- DMZ Hosting
- WPA and WPA2
- WMM (Wi-Fi Multimedia)
- Dual SSID

Voice Features

- Session Initiation Protocol (SIP v2, RFC3216)
- Sending SIP Messages via UDP/TCP
- G.711a, G.711u, G.729, G.726 Codec
- G.711 Pass-Through
- Echo Cancellation (G.167 and G.168)
- Dynamic Jitter Buffer
- Simple Traversal of UDP through NAT (STUN, RFC 3489)
- Session Description Protocol (SDP, RFC 2327)
- RTP/RTCP over UDP
- Three-Way Conferencing
- Remote Firmware Upgrade
- Session Initiation Protocol (SIP v2)
- DTMF Tone Detection and Generation
- Voice Activity Detection (VAD)
- Silence Suppression
- Comfort Noise Generation (CNG)
- Caller ID Generation and Detecting (FSK and DTMF)
- Media Loopback
- SIP TLS (Transport Layer Security)

PRODUCT DATA

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- SIP Channels Support both UDP and TCP Transport
- Support for 2 Simultaneous T.38 or G.729 Calls
- T.38 Fax Relay including V.17, V.21, V.27ter and V.29 and FAX Pass-Through (PCM)
  *T.38 Support is Dependent on Fax Machine and Network / Transport Resilience

Package Contents

- Wireless-G Broadband Router with 2 Phone Ports
- Setup CD-ROM with Norton Internet Security
- User Guide on CD-ROM
- Ethernet Cable
- Power Adapter
- Quick Installation

Minimum Requirements

- High-Speed Internet Connection (cable/DSL/other)
- Activated Voice Over IP Service

Specifications

Model	WRP400

* Note: Many specifications are programmable within a defined range or list of options. Please see the SPA ATA Administration Guide for details. The target configuration profile is uploaded to the WRP400 at the time of provisioning.

Data Networking	MAC Address (IEEE 802.3) IPv4 - Internet Protocol v4 (RFC 791) Upgradeable to v6 (RFC 1883) ARP - Address Resolution Protocol DNS - A Record (RFC 1706), SRV Record (RFC 2782) DHCP Client - Dynamic Host Configuration Protocol (RFC 2131) DHCP Server - Dynamic Host Configuration Protocol (RFC 2131) PPPoE Client - Point to Point Protocol over Ethernet (RFC 2516) ICMP - Internet Control Message Protocol (RFC792) TCP - Transmission Control Protocol (RFC793) UDP - User Datagram Protocol (RFC768) RTP - Real Time Protocol (RFC 1889) (RFC 1890) RTCP - Real Time Control Protocol (RFC 1889) TFTP RTSP HTTP NAT (RFC 1631) Reverse NAT SDP SNTP - Simple Network Time Protocol (RFC 2030) Type of Service - TOS (RFC 791/1349) QoS - Packet Prioritization by Type Router or Bridge Mode of Operation MAC Address Cloning Port Forwarding IP Multicast / IGMP v1, v2, v3/ IGMP Proxy
Voice Features	Voice Algorithms G.711 (a-law and μ-law) G.726 (16/24/32/40 kbps) G.729 AB G.723.1 (6.3 kbps, 5.3 kbps) Call Forwarding: No Answer/Busy/Unconditional Support for Two Simultaneous Calls SIP TLS (Transport Layer Security) Call Transfer Call Waiting/Hold/Retrieve

Specifications

	Three-way Conferencing
	Call ID Number & Name (Primary Line & On Call Waiting)
	Call-ID Block (Prevent Send out the Caller ID)
	Anonymous Call Blocking
	Distinctive Ringing
	Do not Disturb Setting
	Repeat Dialing on Busy
	Call Return
	Emergency Call Support
	Dial Plan
	Speed Dial
	Auto-Attendant
	Multi-Room Meet-Me Conference
	In-Band / SIP-INFO DTMF Translation
Provisioning, Administration, & Maintenance	Web Browser Administration & Configuration via Integral Web Server
	Telephone Key Pad Configuration with Interactive Voice Prompts
	Automated Provisioning & Upgrade via HTTP, TFTP, HTTPS
	Asynchronous Notification of Upgrade Availability via NOTIFY
	Non-Intrusive, In-Service Upgrades
	Report Generation & Event Logging
	Stats in BYE Message
	Syslog & Debug Server Records
	Per Line and Purpose Configurable Syslog and Debug Options
Physical Interfaces	4 100Base-T RJ-45 Ethernet Port (IEEE 802.3)
	2 RJ-11 FXS Phone Ports - For Analog Circuit Telephone Device
	USB 2.0 (reserved for future use via firmware upgrade)
Buttons	Reset, WPS
Subscriber Line Interface Circuit (SLIC)	Ring Voltage: 40-90 Vpk
	Ring Frequency: 20 to 25Hz
	Ring Waveform: Trapezoidal with 1.2 to 1.6 Crest Factor
	Maximum Ringer Load: 3 REN
	On-Hook/Off-Hook Characteristics:
	On-Hook Voltage (Tip/Ring): - 46 to -56V
	Off-Hook Current: 18 to 25mA
	Terminating Impedance:
	600 ohm Resistive
	270 ohm + 750ohm//150nF Complex Impedance
	Frequency Response: 300 – 3400Hz
Regulatory Compliance	FCC (Part 15 Class B), CE, ICES-003, RoHS
Number of Antennas	1
Connector type	Fixed
Detachable (y/n)	No
RF Pwr (EIRP) in dBm	(Average, not Including Antenna)
	802.11g: Typ. 18 dBm @ Normal Temp Range (with PA)
	802.11b: Typ: 20 dBm @ Normal Temp Range (with PA)
Antenna Gain in dBi	2 dBi
UPnP able/cert	Yes
Power Supply	Switching Type (100-240V) Automatic
	DC Input Voltage: +5 VDC at 2.0 A Max.
	Power Consumption: 7.9 watts (Average)
	Power Adapter: 100-240V - 50-60Hz (26-34VA) AC Input, 1.8 m Cord

PRODUCT DATA

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Indicator Lights/ LEDs	Power, Ethernet, Wireless, Phone 1, Phone 2, Internet, WPS
Documentation	Quick Installation and User Guide are Downloaded from www.linksys.com Linksys SPA ATA Administration Guide - Service Providers Only Linksys Provisioning Guide - Service Providers Only
Security Features	Password-Protected Configuration for Web Access Denial of Service (DoS) Prevention URL Filtering, and Keyword, Java, ActiveX, Proxy, Cookie Blocking VPN Passthrough for IPSec, PPTP, and L2TP Protocols 64, 128 bits WEP with Passphrase WEP Key Generation SSID Broadcast Disable Access Restriction by MAC and IP Addresses Wi-Fi Protected Setup (WPS), Wi-Fi Protected Access™ (WPA), Wi-Fi Protected Access™ 2 (WPA2)
Security Key Bits	64, 128

Environmental

Dimensions	5.51" x 5.51" x 1.06" (140 x 140 x 27 mm)
Weight	10/05 oz (285 g)
Power	External, Switching 5VDC 2A
Certification	FCC, CE, CB, IC, UL, Wi-Fi (802.11b + WPA2, 802.11g + WPA2, WMM)
Operating Temp.	32 to 104°F (0 to 40°C)
Storage Temp.	-4 to 158°F (-20 to 70°C)
Operating Humidity	0 to 85%, Relative Humidity, Noncondensing
Storage Humidity	5 to 90%, Noncondensing

The Linksys WRP400 Wireless-G Broadband Router with 2 Phone Ports is an impressive and versatile networking solution offering advanced triple-play services prioritization in a single intelligent compact device.

Whether it's broadband internet sharing, VoIP service, or enhanced services like multimedia gaming, streaming media, or IPTV, the innovative development of the WRP400 provides users with the Quality of Service (QoS) requirements that must now be implemented to ensure guaranteed service delivery for the latest generation of applications that are becoming more prevalent.

The WRP400 itself has a wireless access router to link both Wireless-G (802.11g at 54Mbps) and Wireless-B (802.11b at 11Mbps) and also includes a built-in, 4-port, full-duplex, 10/100 Ethernet switch to connect PCs directly or attach additional hubs and switches to create as big a network that is needed. A robust firewall feature protects local computers and prevents malicious attacks from outside intruders. The two telephone ports enable high-quality feature-rich VoIP service utilizing existing analog phones.

With the Linksys Wireless-G Broadband Router with 2 Phone Ports at the center of your home or office network, customers will appreciate the higher level of quality associated with their on-line experience that ensures fault-tolerant data delivery, exceptional voice quality, and continuous, uninterrupted streaming media that they have now come to expect.

Highlights

Toll Quality Voice and Carrier-Grade Feature Support
The WRP400 delivers clear, high-quality voice communication in diverse network conditions. Excellent voice quality in a demanding IP network is consistently achieved via our advanced implementation of standard voice coding algorithms. The WRP400 is interoperable with common telephony equipment like voicemail, fax, and interactive voice response systems.

Large-Scale Deployment and Management
The WRP400 offers all the key features and capabilities with which service providers can provide customized services to their subscribers. The WRP400 can be remotely provisioned and supports dynamic, in-service software upgrades. A secure profile upload saves providers the time, expense and hassle of managing and pre-configuring or re-configuring customer premise equipment (CPE) for deployment.

Ironclad Security
Linksys understands that security for both end users and service providers is a fundamental requirement for a solid, carrier-grade telephony service. The WRP400 supports secure, encryption-based methods for communication, provisioning and servicing.

Linksys

Web:
http://www.linksys.com

Linksys products are available in more than 50 countries, supported by 12 Linksys Regional Offices throughout the world. For a complete list of local Linksys Sales and Technical Support contacts, visit our worldwide website at www.linksys.com

The maximum performance for wireless is derived from IEEE Standard 802.11 specifications. Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage. Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions.

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